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REMARKS

Applicants initially wish to point out that the Office Action Summary Page of the current Office Action does not include consideration of claim 9, which was newly added in applicant's previous amendment filed September 11, 2003. Applicant previously submitted a Communication requesting issuance of a new Office Action which includes consideration of claim 9; however, it is applicant's understanding that this file has been misplaced and that applicant's communication has consequently not been matched with the file. In a telephone conversation with the Examiner's supervisor, Mr. Chaudhuri, on February 10, 2004, it was recommended that applicant file a response to the Office Action in the event that the file is not located quickly. Accordingly, applicant respectfully requests that the finality of the rejection be withdrawn and a new Office Action issued in this application which includes substantive consideration of all claims, including claim 9.

In the latest Office Action, the Examiner maintained the rejection of claims 1-6 and 8 under 35 U.S.C. 103(a) as being unpatentable over the combination of Blalock (5,320,981) and Wu (5,940,731). In response to applicant's previous arguments that the Examiner has provided no motivation or reasoning as to how one skilled in the art would modify the references to arrive at the claimed semiconductor device precursor, the Examiner refers to the Office Action mailed July 30, 2003. However, the only basis supplied by the Examiner in that Office Action is the assertion that one skilled in the art would have combined the teachings of Blalock and Wu "to enable formation of the interconnect structure."

As applicant previously pointed out, Blalock teaches a method of forming a via by re-depositing dielectric material during etching to form sidewall spacers, while Wu teaches separate depositions of conductive polysilicon material to form sidewalls. There is no suggestion or motivation to replace Blalock's dielectric material with the polysilicon material of Wu because of the substantial differences in the two processes.

In response to applicant's argument that Wu does not teach a hard mask layer which is formed by a single deposition of hard mask material as taught in the present invention and as recited in previously added claim 9, the Examiner asserts that the recited limitation has been given no patentable weight, asserting that "the method of forming the device is not germane to the issue of patentability of the device itself." Applicant disagrees. The manner in which the mask material is deposited affects the composition of the shoulders of the semi-conductor

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device precursor. As previously pointed out, Wu does not teach a pair of shoulders having "said mask material thereon" as recited in claims 1 and 9, but rather a material deposited from a second or third deposition as Wu teaches depositing separate layers of the same type of material. Thus, Wu does not teach the claimed structure because Wu's shoulders are of a different material, i.e., not material re-deposited from the mask.

Claim 7 stands rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Blalock and Wu and further in view of Linn et al. (5,547,896). Applicant reiterates that the teachings of Blalock and Wu are not combinable. The Examiner maintains that it would have been obvious to use a titanium-tungsten alloy as a hard mask layer as taught in Linn. Again, applicant submits that there is no motivation to combine the reference teachings. Blalock does not teach or suggest the use of a hard mask material, and there is no teaching or suggestion in Wu that a titanium-tungsten alloy may be used in place of his polysilicon hard mask material. Nor is there any teaching or suggestion in any of the references of a semiconductor device precursor having a layer of hard mask material which has been formed by a single deposition of mask material which includes a pair of facets. Nor do any of the references teach or suggest a layer of dielectric material having a pair of shoulders with the hard mask material thereon as claimed. Claim 7 is clearly patentable over the cited references.

For all of the above reasons, applicant submits that claims 1-9 are patentable over the cited references. Early notification of allowable subject matter is respectfully requested.

Respectfully submitted,
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